

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2017/2018

BFN3154 – ADVANCED TOPICS IN FINANCE

(All sections / Groups)

2 MARCH 2018
3.00 p.m – 5.00 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of **FOUR (4)** printed pages.
2. Answer **ALL** questions. Marks are shown at the end of each question.
3. Please write your answers in the answer booklet.

Question 1

a) The followings are the monthly returns of Dow Jones Index and KLCI for a year period.

2016	Dow Jones Index	KLCI
January	1.23	4.5
February	-6.5	0.87
March	5.95	-0.98
April	2.33	3.46
May	-8.35	2.98
June	-4.56	1.75
July	7.9	0.9
August	-4.5	3.78
September	6.25	0.45
October	4.95	-3.9
November	0.05	-0.89
December	8.39	-1.8

i) Calculate mean for both indices.

(8 marks)

ii) Covariance between the rates of return of both indices.

(12 marks)

b) As the new fund manager in O-Securities, you are concerned with the level of risks of both of the stocks invested by O-securities. As the manager you are required to calculate the correlation coefficient of the stocks and the portfolio standard deviation, if the covariance of the stocks is 0.009, the standard deviation of the first stock is 15% and the standard deviation of the second stock is 20%?

(5 marks)

(Total: 25 marks)

Continued...

Question 2

- a) i) Three stocks (A, B, C) and two common systematic risk factors have the following relationship (Assume $\lambda_0=0$). If $\lambda_1=5\%$ and $\lambda_2=6\%$, calculate expected return on these stocks if the equation is given as below:

$$E(R_A) = (0.8)\lambda_1 + (0.9)\lambda_2$$

$$E(R_B) = (-0.2)\lambda_1 + (1.3)\lambda_2$$

$$E(R_C) = (1.8)\lambda_1 + (0.5)\lambda_2$$

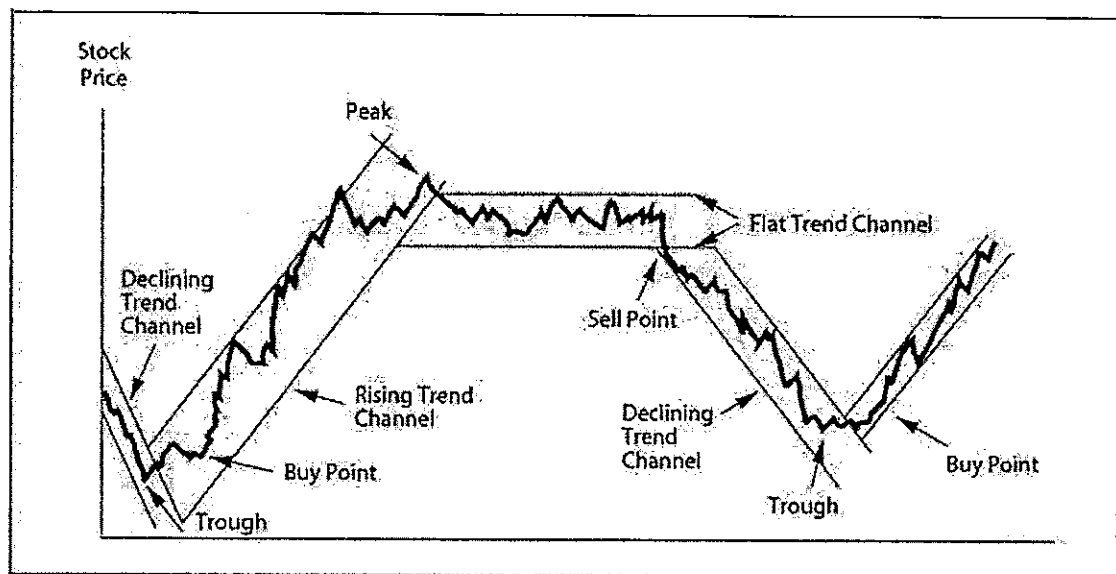
(8 marks)

- ii) Given the expected return of the shares one year later are as in part (i) and the firms do not pay a dividend, calculate the estimated price of the shares one year later. Assume that all three stocks are currently priced at RM 37.

(7 marks)

- b) Discuss the stock price cycle based on the diagram and the trading rules of “Contrary-Opinion Rules”, “Follow the Smart Money”, “Momentum Indicators” and “Stock Price and Volume Techniques”.

(10 marks)



(Total: 25 marks)

Continued...

Question 3

- a) Based on the table below discuss the meaning of Breusch-Pagan / Cook-Weisberg tests and the outputs given.

View	Proc	Object	Print	Name	Freeze	Estimate	Forecast	Stats	Resids
Heteroskedasticity Test: Breusch-Pagan-Godfrey									
F-statistic				5.397259		Prob. F(1,27)			0.0279
Obs*R-squared				4.831289		Prob. Chi-Square(1)			0.0279
Scaled explained SS				4.695572		Prob. Chi-Square(1)			0.0302
Test Equation:									
Dependent Variable: RESID^2									
Method: Least Squares									
Date: 22/02/12 Time: 12:15									
Sample: 2004M10 2007M02									
Included observations: 29									
Variable		Coefficient		Std. Error		t-Statistic		Prob.	
C		-1.60E-07		1.76E-07		-0.909572		0.3711	
WIN2000		3.99E-06		1.72E-06		2.323200		0.0279	
R-squared		0.166596		Mean dependent var		2.26E-07			
Adjusted R-squared		0.135729		S.D. dependent var		3.33E-07			
S.E. of regression		3.09E-07		Akaike info criterion		-27.07455			
Sum squared resid		2.58E-12		Schwarz criterion		-26.98026			
Log likelihood		394.5810		Hannan-Quinn criter.		-27.04502			
F-statistic		5.397259		Durbin-Watson stat		1.714717			
Prob(F-statistic)		0.027944							

(6 marks)

b)

- i) What is panel regression and how you can use panel regression in research?

(8 marks)

- ii) Discuss the difference between fixed effect and random effect regression and how to decide the appropriateness of using fixed or random effect regression?

(7 marks)

- iii) How to decide between random effect and fixed effect analysis in research?

(4 marks)

(Total: 25 marks)**Continued...**

Question 4

- a) Fama and French three-factor asset pricing model was developed as a response to poor performance of the CAPM in explaining realized returns. Explain the equation of Fama and French three-factor asset pricing model and its differences as compared to Capital Asset Pricing Model.
(10 marks)
- b) Discuss under what circumstances Arbitrage Pricing Theory (APT) is preferred over the Capital Asset Pricing Model (CAPM).
(8 marks)
- c) Assuming the CAPM or one-factor model holds, what is the cost of equity for a firm if the firm's equity has a beta of 1.2, the risk-free rate of return is 2%, the expected return on the market is 9%, and the return to the company's debt is 7%?
(7 marks)

End of Page